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ABSTRACT

While addressing alternative methods of conducting school district and classroom needs assessment, this booklet outlines the purposes and methods of needs assessments and reviews the needs assessment requirement in the South Carolina Defined Minimum Program. Needs assessments programs from five districts of varying size are described and presented as models. The final chapter presents detailed descriptions of needs assessment theories and practices as they appear in local districts and in the current literature. (Photographs may reproduce poorly.) (Author/DW)

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CATALYST

Alternative Methods of Conducting a Needs Assessment

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Introduction

With adoption of the Defined Minimum Program by the State Board of Education, South Carolina's school districts move into a new era of sound management principles in order to qualify for state accreditation. The Defined Minimum Program standards demand an annual needs assessment from each district on which to base a firm foundation for future planning.

The purpose of this booklet is to present alternative methods of conducting a needs assessment for a school district and its component individual schools and classrooms. Its underlying purpose is to encourage development of programs beyond minimum standards by sound planning of time, money, staff talents and other local resources, including citizens of the community served by the district.

Major broad and specific objectives and other outcomes of the needs assessment are included, for the planning cycle is a continuing circle which must be flexible in needs assessment, implementation and evaluation as conditions and priorities change.

The first chapter gives a brief outline of the purposes and methods of conducting needs assessment. The second chapter reviews the requirements for district needs assessment which are contained in the Defined Minimum Program, and presents various services available from the State Department of Education to help meet these requirements. The third chapter describes how three South Carolina districts used their needs assessment as part of their planning process. The districts portrayed – Charleston, Lancaster, and Barnwell – represent a large, a medium and a small district, each with differing problems and differing approaches to solve them.

The fourth chapter reports the procedures and outcomes of two school district needs assessment models from other states: Dallas, Texas and San Bernardino, California. Though these two school districts are sizable, the diverse ideas and outcomes from both models may easily be applicable to needs assessment in varying sizes of school districts.

The final chapter contains detailed descriptions from a combination of needs assessment procedures from other parts of the nation and from current literature.

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Purpose and Process

What is needs assessment? A roadmap from where you are to where you and your passengers want to go. A blueprint of what you want to build. An annual medical check-up to spot disease or symptoms.

It's a systematic, comprehensive inventory of all your school possessions – people, time, money, learning materials, space, transportation. More specifically, it's measuring the gap between "what is" and "what should be" about students – both youth and adults – under our responsibility.

Starting out by studying "what is" forms a firm, logical basis for deciding "what should be" and for setting priorities for closing the gap. But priorities must change as problems change – or as other needs crop up. It's not just an answer to current "crises," but a scientific long-range plan.

There's really no standard definition.

WHAT IT ISN'T is a "pie–in–the–sky Utopia" that looks good on paper and never gets beyond being a bunch of words, graphs, and charts; WHAT IT IS is "action," based on an organized, thorough and informative self-evaluation, building on past experience and future planning.

How do you conduct a comprehensive needs assessment? It's basically an A, B, C process, not necessarily in strict alphabetical order.

1. Action – by administrators, teachers or other staff members who introduce the idea and follow through with it.

2. Board approval – school board members were elected by the community to represent the people and to decide how their tax money is spent for school. Their serious consideration of the question, "Why do we have this school system in this area?" is prerequisite to a written statement of the district's broad educational philosophy and plans for educational progress.

3. Collection and analysis of the "status quo" (data on the present situation).

4. Determination of district goals and individual school goals to make progress toward specific objectives under the umbrella of the general district plan and philosophy – all within confines of South Carolina and federal regulations, governing standards, finances and other structures.

5. Evaluation of alternative solutions, alternative needs, alternative objectives, alternative priorities – a continuous honest appraisal of what is expected, how long it will take, and how well it's succeeding.

NEEDS ASSESSMENT is an integral factor in the cycle of comprehensive, long-range planning. But planning is a continuous wheel – meaning you can start anywhere – as long as you keep the wheel MOVING.

PLANNING CYCLE

The essential defining characteristic of a fully developed district needs assessment program is the formulation of districtwide educational goals. Such goals are sometimes stated before the needs assessment as comprehensive criteria against which to measure accomplishments or weaknesses (needs). Then, after the needs assessment, the goals are often re-stated as problem-oriented goals aimed toward reducing needs.

Various districts have set their educational goals in different ways:

1. Updating past broad goal statements and translating them into measurable pupil performance objectives for each stage of schooling.

2. Establishing districtwide goals solely on the basis of professional educators' opinions.

3. Involving cooperative groups of citizens and professional educators in the establishment of districtwide educational goals.

4. Using state goals as a starting point for districts to determine their variations for their unique district goals.

South Carolina's State Goals

A set of long-range educational goals for South Carolina was developed as a result of a comprehensive needs assessment study begun in 1968. This study was conducted by the State Department of Education to identify the educational needs in South Carolina through its involvement in the ESEA Title III program. The Department and the Committee on Educational Research, School of Education, University of South Carolina, developed two related models for the evaluation of public education in the State. The models were utilized to identify educational needs and to establish priority rankings of the identified needs.

The findings of the needs assessment and additional facts about the educational system were utilized by staff members in the Department to develop a proposed set of long-range educational goals for South Carolina. These objectives were presented for consideration by the State Board of Education, which adopted them on May 8, 1970, as "South Carolina Educational Objectives for 1975."

Question: But why does <u>our</u> district or <u>our</u> school need assessment of needs?

Answer: There are youth now in your schools, babies growing up who expect twelve or more years of education, adults who are illiterate or undereducated for today's jobs. There are parents and other citizens who pay taxes and who deserve some voice in setting priorities, goals, objectives. There are teachers and other people in your schools who have good ideas, who know individual students and their specific needs. Besides that, it will pay dividends for more efficient school administration. And it's a legal requirement now for accreditation.

BENEFITS:

1. You develop a BANK of information on the district from which to make future educational decisions.

2. You reduce internal and external problems and help to solve current and future problems by developing sound organizational structure and processes for continued evaluation.

3. You provide a sound basis for allocating funds, people, equipment and other resources.

4. You pinpoint problems more precisely to attack the real problems, not Quixotic windmills.

5. You develop well-defined, concrete goals and smooth the path toward achieving them.

6. You provide a framework for personnel evaluation.

7. You provide greater involvement by citizens by encouraging their support, understanding, and active participation in spotting and solving problems.

8. You improve communications throughout the school system and community by tapping new ideas and talents from new sources.

9. You lessen complaints and gripes by encouraging mature students and adults to participate in making decisions affecting their education system.

10. You improve citizen financial and personal support for bond issues and other school programs.

HOW TO BEGIN:

1. Obtain Board of Trustees approval of the study.

2. Appoint a team of administrators at each school (including principal, assistant principal, and a teacher, with other staff members if desired).

3. Insure that team members are thoroughly familiar with the process and ultimate purpose of the needs assessment by reading, training and conferences.

4. Have the team appoint a coordinator for activities and reports.

5. Enlarge the school committee to represent students, parents, and the community.

6. Appoint a district committee to represent each school in the district and to correlate recommendations from each school.

Question: Another committee?

Answer: Yes, but based on the size and other variables in districts, encompassing such membership as:

1. Board member
2. District superintendent or designated staff members
3. Teacher representatives
4. School administrators
5. Students
6. Testing and research specialists
7. Parents
8. Representatives of industry or business
9. Representatives of local government, such as the mayor, council member, state legislator or county official
10. Other representatives of the local "power structure"

Choice of committee members should reflect a balance of men and women, and of white and black races in rough ratio to that of the community served by the district. It should also represent a balance of elementary, middle school, high school and vocational representatives.

Question: What about a large district in which there is a wide variety of towns and rural areas, socio-economic factors, traditions, and other variables?

Answer: The committee membership should be broadened and balanced accordingly, with representatives from each factor.

WHAT DOES THE DISTRICT COMMITTEE DO?

1. Plan and manage the needs assessment study.
2. Identify and document district educational concerns and interests based on their own study and findings of each school's committee.

3. Prepare a report and recommendations for the superintendent and Board of Education.

HOW?

1. Discuss and define the purpose of needs assessment.
2. Determine what factors are to be considered.
3. Collect, study and analyze these factors.
4. Determine constraints of law, budget, time, standards, and other factors.
5. Examine various models in South Carolina and other states and choose one that fits the district.
6. Adapt or revise a needs assessment model to suit the characteristics of the school or district.
7. Obtain technical assistance or training from the State Department of Education or other qualified consultants familiar with the planning process.
8. Recommend priorities among the needs listed.

MAJOR PURPOSES

1. To identify state, district and school level educational problems and needs.
2. To determine state, district, and school quality of education.
3. To provide effective procedures for identifying ways to achieve improvements in education.
4. To develop performance standards.
5. To gather dependable information on which to base decisions.

ON WHAT PREMISES IS NEEDS ASSESSMENT BASED?

1. The final measure of educational quality is what happens to students.
2. Students' achievement is conditioned by characteristics of the community and of the students themselves.
3. These characteristics can be identified and measured.

ESSENTIAL CHARACTERISTICS

1. Goal or objective oriented.
2. A comprehensive attempt to measure everything that happens in each school.
3. A cooperative effort among professionals and laymen.
4. Continuous, so that student progress can be measured accurately.
5. Flexible enough to be changed as goals and needs change.
6. Reported clearly to the community so that they will understand the purposes, process and anticipated results.

State Requirements and Assistance

Annual assessment of school achievement and shortcomings is one of the standards in the Defined Minimum Program adopted by the State Board of Education in 1973. By action of the State Board of Education, the 1974–75 school year was designated as "phase-in year" for the Defined Minimum Program, and complete implementation of the program will be effective July 1, 1975.

The new standards of the Defined Minimum Program require each school district to develop an annual plan based on an annual needs assessment. This needs assessment forms the base upon which school districts should build their programs. Following is an excerpt from the Defined Minimum Program on needs assessment.

Annual Needs Assessment

The implementation of a satisfactory educational program depends upon the application of sound management functions. One important management function is planning. Planning may be considered a series of activities that includes establishing goals, assessing needs, developing plans to meet identified needs, and formulating activities, including evaluation. The State Board of Education adopted the philosophy that the State should have a continuous program for improving education. The philosophy is stated: "The Board believes each school district should have at least a one-year plan for educational improvement. . .[which] should be developed after careful evaluation of primary local needs for improvement." Each school district, therefore, shall annually assess the education program and identify areas of program deficiencies. Following the assessment of needs, the district shall adopt a plan for educational improvement. The annual assessment and the plan shall be filed with the Chief Supervisor of the Accreditation and Educational Improvement Section no later than September 1.

The assessment of educational needs can be made by one of the following: (1) a model developed by the district, (2) a self-study using the evaluative criteria approved by the Southern Association of Colleges and Schools, or (3) a model developed by the State Department of Education.

Areas to be Assessed

The assessment of needs shall include a thorough status study and evaluation of the district's educational program, including the areas listed below.

1. Board of Trustees
2. Superintendent
3. Principals
4. Teachers
5. Students
6. Curricula
7. General Operations
8. School-Community Relations
9. Physical Facilities and Grounds
10. Finances
11. Adult Education Programs
12. Transportation

School districts may receive assistance from the Office of General Education in conducting the needs assessment and in developing their annual plan. The Accreditation and Educational Improvement Section has developed an assessment format and procedure and an annual plan format and procedure. Nine supervisors and three planning coordinators have been trained to provide help in this area. The service can be received as a part of the service provided as a school district prepares for a two weeks leadership and planning process through the Leadership Development Center that will result in a plan for the district that meets all of the requirements of the Defined Minimum Program. For those school districts not choosing to go through the Leadership Development Center, supervisors will be assigned to regions throughout the State to provide the same service on a more limited scale. They will provide the necessary technical assistance in preparation for and conducting of needs assessment and the development of an annual plan. The completed assessment and annual plan will fully comply with the requirements of the Defined Minimum Program, provided the school district completes all of the procedures of the formats.

All school districts are required by State Board regulations to develop annual operational plans based upon identified and stated needs. The Office of General Education, through its Accreditation and Educational Improvement Section, provides technical assistance for development and implementation, and through its accreditation system, also provides a detailed evaluation of the needs assessment, the annual plan and the district's overall education program. A description of the Leadership Development Center, a unit within the Accreditation and Educational Improvement Section, details the specifics of the facility and its planning process.

The Leadership Development Center

The South Carolina State Department of Education Leadership Development Center is located at 1406½ Gervais Street, Columbia. It contains office space for three planning coordinators and a secretary as well as a conference room, an observation booth, and a small lounge area. The conference room will seat up to fifteen persons comfortably while providing ample chalkboard and view screen space. Ceiling microphones and a one-way mirror make it possible for persons in the observation booth to see and hear the conferees without disturbing them.

The Center provides local district superintendents with a facility where they can assemble with their management teams away from the distractions and day-to-day routine in their district, and, with the guidance of a planning coordinator, follow a step-by-step

thought process designed to create a plan for their district's future utilizing a "Management by Objectives" approach. This thought process provides the answers to the questions: Where Are We, Where Do We Want To Go, and How Do We Get There?

After sufficient orientation within the district, which includes the collection of data relative to district needs, the first of two five-day sessions at the Center begins. Through this process, the district team is exposed to a needs assessment that produces tentative answers to the first two questions. The needs assessment takes the form of an analysis that examines:

1. The educational beliefs held in common by the superintendent and his team.
2. The administrative practices followed within the district that may be hindering more than helping.
3. The district organization needed to accomplish the job.
4. The resources of people, time, money, and authority available to the district.
5. The problems or weaknesses existing within the district.

These actions constitute an internal analysis. The team then moves to an external analysis of the school district environment. This is an activity designed to assess those environmental factors that have an impact on the district operation and over which, the district, as an institution, has little or no control. Each environmental factor thus identified is the subject of an assumption regarding its impact on the district during the calendar period to be covered by the district plan.

Following an intersession period of two (2) to several weeks, during which time additional data necessary to the needs assessment are acquired, the team reassembles at the Center to validate its preliminary objectives, to identify and analyze alternatives, and to develop appropriate strategies and actions to accomplish the selected objectives. These strategies and actions are placed in priority order and assigned a completion date.

Once a district completes the two week sessions at the Center, the Planning Coordinator provides them with continuing assistance in the form of visits, letters, and consultant service. Additionally, all sections of the Office of General Education are provided with copies of the district plan so that their assistance can be more closely coordinated.

PLANNING OFFICE

During early 1975, the Department's Planning Office will conduct a series of training programs for district superintendents and three members of his staff or principals. The five-session training programs will provide administrators with information on the planning process and more specifically, on preparing the one-year plans for educational improvements required for the Defined Minimum Program.

The monthly training programs are scheduled in four regions as follows:

Charleston:	January 13, February 10, March 10, April 14, May 12
Florence:	January 14, February 11, March 11, April 15, May 13
Columbia:	January 16, February 13, March 13, April 17, May 15
Spartanburg:	January 17, February 14, March 14, April 18, May 16

These training sessions will cover such topics as:

1. Methods of developing educational goals

2. Needs assessment:

   Instruments developed by the Department
   Steps for conducting your own needs assessment
   Types of data needed in conducting a needs assessment
   Sources of data
   Analysis and interpretation of data
   Developing needs statements from data
   Prioritizing needs

3. Writing objectives

4. Identifying and selecting alternatives

5. Processes for identifying and selecting alternatives

6. Resources within the Department

7. Management functions:

   Controlling
   Implementing

8. Formulating a written plan

9. Evaluation:

   Definition of terms
   Program evaluation
   Plan evaluation

SURVEYS

The Education Products Center Survey Section (formerly under Research) also conducts a type of needs assessment of individual districts, upon request of the district superintendent. A survey may be comprehensive – covering staff qualifications,

administrative organization, buildings, curriculum, special needs for vocational, adult or handicapped children, community socio-economic conditions, and other variables. Surveys may also deal with only one or two of these elements as determined by the district's request.

EVALUATION INSTRUMENTS

The Survey Section has a *School District Profile Model* which contains a checklist for evaluating the school system, in addition to forms for ranking the district's economic, educational, industrial, and school administrative, attendance and enrollment figures for comparison with State low, median and high norms.

An alternative instrument to measure specific characteristics and dimensions of a school district is the *Quantitative Analysis of a School District,* which deals with seven management functions and their adaptation to the school system. These functions are administration, communications, information, personnel, finances, planning and evaluation. The analysis is available from the Education Products Center, Room 1202, Rutledge Building.

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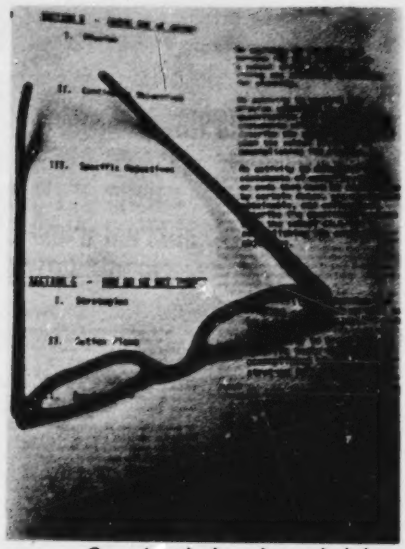
Leadership Development Center offers district administrative teams intensive training and practice in planning, needs assessment and other managerial techniques.

Flexible, long-range plan is formulated on the basis of stated mission, objectives, needs, strategies, plan of action and specific assignment of responsibilities.



Completed plan gives administrators a basic blueprint for using human, financial and material resources.

Words become action as the plan is implemented by principals, teachers, students.

And classroom needs require constant review and revision of the plan as conditions change.

Three South Carolina District Models

CHARLESTON

How They Began

Charleston County held a Needs Assessment Workshop in August, 1973, for the central staff. Purposes for conducting a needs assessment were outlined as follows:

1. To identify educational needs and to determine their relative priorities.
2. To facilitate planning decisions regarding allocations of resources such as personnel, funds, and equipment.
3. To provide justification for applying resources to some needs and not to others.
4. To provide a standard against which the quality of decisions in applying resources to one need area over another can be assessed.

Some of the following questions were considered in formulating basic policy decisions:

- What will be the level of impact? (What schools and grades will be included?)
- Which child-centered goals should be included in the assessment? (i.e., Are we going to look at the total child or just at cognitive goals?)
- How will the desired levels of performance be established for goals?

Charleston County's school system was consolidated in 1968 into one district under a central county school system, but the district retained eight unique "constituent districts," each with its own constituent board of trustees, some elected and some appointed, and a "constituent district superintendent." The county board has power over policy-making and the purse strings, as well as veto power over each constituent district board of trustees' decisions. The eight constituent district boards have the specific legal authority to employ teachers and other personnel, transfer pupils and determine which school any pupil attends, suspend or dismiss pupils, enforce school bus safety regulations, and provide transportation — all subject to approval of the County Board of Trustees.

The county has a 100 mile coastline and an immense diversity of socio-economic and demographic features, industry, agriculture, commerce, military personnel, and other transient residents, permanent citizens, traditions and values. It contains semi-isolated islands and a large city with sprawling suburbs.

Public support is lacking for public education in a city and suburbs where the middle and upper classes have, for generations, attended private and Catholic parochial schools.

The district ranked thirty first among ninety-four districts in amount of local revenue received per child, although it ranks fifth among the wealthiest districts in South Carolina.

District tests (Iowa Test of Basic Skills) of mathematical and communication skills of grades 3, 6, and 9 showed a steady decline since 1968, although results last year took an upswing.

The Process

To assess and meet these and other problem areas, Dr. Alton Crews and his staff of assistant superintendents began a fourteen-point program:

1. The district intensified its public relations program with thirty-minute television shows and news releases. An annual report to the people, published in the *Charleston News and Courier Evening Post* in August, listed the fifteen objectives adopted by the County Board. The report revealed significant statistics about each of the eighty-one schools in the district, test data showing an average four percentile increase in math and reading skills, and other pertinent statistics and program highlights.

2. A University of South Carolina professor was hired to compile copies of documents reflecting all national educational goals from the 1918 National Education Association's *Cardinal Principles of Secondary Education* to the 1973 Kettering Foundation, National Commission on the Reform of Secondary Education, *Report to the Public and the Profession.* The district staff summarized and grouped goals from these and the State Board of Education's long-range objectives.

3. The titles of constituent district superintendents were changed to area superintendents and their number was reduced to six to improve communications and coordination.

4. Based on identified problems and needs, a national publishing company designed and printed a questionnaire about various topics. These included instructional programs and processes, student rights and responsibilities, buildings, specific subjects, teacher training, planning, teacher unions and salaries, and public communications. This survey was made up and distributed to three different

audiences: 2,300 administrators, 18,000 high school teachers and students, and a scientific sample of 1,000 county citizens representing a cross-section of social, economic, geographic, racial, and other variable characteristics.

The poll asked the three audiences surveyed to rate two things about each item: how important they considered it, and how well they felt that the schools were meeting each need. The polls were not only mailed to the random sample, but also distributed through various civic organizations and published in the newspaper for other interested citizens to fill out.

Results of the poll, after careful analysis by both the district staff and the publishing house pollsters, were printed and put into graph form to establish goals and put them in priority order.

5. The County Board established fifteen broad goals which are now being redefined and expanded to include performance competency. The goals are:

   That upon graduation from the Charleston County Public Schools the learner should:

   (1) Be able to acquire ideas through reading and listening, and communicate ideas through writing and speaking.

   (2) Be able to perform fundamental mathematical computations.

   (3) Possess skills and knowledges necessary to (a) obtain entry-level employment in jobs not requiring advanced training, and (b) continue education and training in post high school institutions or in business and industry.

   (4) Know the basic knowledges mankind has acquired.

   (5) Possess a set of fundamental moral values which undergird our cultural heritage.

   (6) Be able to make responsible decisions and be able to accept the responsibility for results of his decisions.

   (7) Have acquired the habits and attitudes associated with responsible citizenship, and an understanding and appreciation of America's heritage.

   (8) Have developed a concern for the quality of life and the safeguarding of our natural heritage.

(9) Understand and apply sound principles for maintaining personal and community health.

(10) Understand and appreciate cultural diversity and work to eliminate cultural misunderstanding.

(11) Make wise use of leisure time.

(12) Understand and be able to effectively participate in our free enterprise economic system.

(13) Possess a positive self-concept.

(14) Discover and nurture his creative talents.

(15) Have learned how to learn since education is a continuous, life-long process.

We further believe that this is the responsibility of this school board to provide educational programs to impart to the learner the above listed skills, knowledges and values the learner should possess upon successful completion of each educational activity. Comparison of results desired with results achieved will determine the allocation of resources and methods and procedures employed.

Charleston County Board of School Trustees

6. A continuous progress system is being instituted in all elementary and middle schools (K–8) in reading and mathematics, at a rate of ten to fifteen schools per year. Keyed to multi-level and multi-media materials, this individualized instruction program includes a computerized assessment, diagnosis and prescription, for each child, monthly or every six weeks. Aides are also being employed to assist teachers in the elementary and middle schools.

7. Middle schools (for grades 6–8) continue to individualize instruction tailored to meet the needs of emerging adolescents and prepare them for high school.

8. High schools are moving into a nine-week quarter system with many electives and a concentration on vocational and career education. Each broad objective for graduates will have specific sub-goals to make the diploma meaningful for prospective future employment and education and the students themselves.

"We feel that graduation should be delayed until these basic competencies are attained, or the high school graduate should get a diploma which indicates that he or she has not achieved specific performance competencies," Dr. Crews explained.

9. Staff development will reach across the entire team of some 5,000 teachers and administrators. Key staff members have all completed National Academy for School Executives training and a University of South Carolina course in management so they will exercise sound administration practices by precept and example," the Charleston superintendent reported.

   Principals of all eighty-one schools had introductory summer training to become more effective, and further formal training is continuing during the school year. Each school is responsible for developing a sound six-point program in their respective schools covering:

   (a) realistic needs assessment;

   (b) faculty plan to meet these needs;

   (c) faculty plan to develop budget on a per pupil basis with freedom for planning within the structure of state standards;

   (d) allocation of time and people to implement the school's plan;

   (e) a public relations program to interpret the school's program to the public it serves;

   (f) a personal development schedule for additional college courses, workshops, professional reading and other individual needs of the principal.

   In each of Charleston County's six geographic areas, a representative teacher has been selected to review district personnel policies with two district personnel officials, using the Delphi technique to place recommended changes in priority order.

10. The number of handicapped children enrolled in some sort of special education program has increased from 150 in 1968–69 to 3,884 last year, with projected enrollments of 6,165 this year and 8,853 next year.

11. Phase One of a massive $3,300,000 building and renovation campaign is underway to eliminate portable classrooms, crowded conditions and disrepair. A 1972 referendum to raise the debt ceiling for school construction passed almost two-to-one.

12. Not neglecting adults, the district had some 5,000 adults enrolled last year in night school, with 4,485 of these working toward high school diplomas. Almost 6,000 citizens attended three community schools for such self-improvement, educational and recreational courses as personal typing, family finance, physical

fitness, and mechanics. These activities are now expanded to include three more schools this year, during the summer and after school hours in order to meet popular demand.

13. Gifted high school students will attend classes at Baptist College and the College of Charleston to gain advance college credits, beginning the second semester of 1974–75 academic year.

14. A "point system" is being established for school staffs so that talents will be used when and where most needed.

"Some improvements are still just a gleam in our eyes, but we have a conceptual framework that has a consistent thrust, while remaining flexible enough for changing conditions," Dr. Crews said. "I like to call it management by results," he added.

MINIMUM EDUCATIONAL PERFORMANCE REQUIREMENTS

2. District Goal

Upon graduation the student shall be able to perform fundamental mathematical computations.

2.1. Course

General Math 402

2.2. Performance Goal

The student will be able to apply basic computational skills in solving problems commonly encountered in society.

2.21 Performance Indicators

2.211 Given a road map, the student will find the distances between towns on the map.

2.212 Given the purchase price of an item, and the number and amount of monthly installment payments, the student will determine the credit charges.

2.213 Given the cost of carpet per square yard, and the dimension in feet of a rectangular room, the student will compute the cost of wall-to-wall carpeting.

NEEDS ASSESSMENT REVIEW SHEET

Needs assessments are conducted to determine how well an existing program is doing relative to its stated objectives. This information can then be used in planning program changes or in developing new programs. The four major steps in a needs assessment and the primary responsibilities of the project director (PD) and the evaluator (E) are summarized below.

PD	E	JOINT	NEEDS ASSESSMENT ACTIVITIES
			List the possible goals.
X			A. Prepare comprehensive set of objectives.
		X	B. Clarify statements of objectives.
X			C. Have objectives reviewed by potential raters.
X			D. Print the objectives on 3 X 5 cards.
			Determine the relative importance of the objectives.
	X		A. Suggest methods for selecting and weighing raters.
X			B. Select and weigh the raters.
	X		C. Provide methods for determining the value system.
X			D. Establish the importance of the objectives, via ratings or other methods.
X			E. Decide upon the relative importance of objectives.
			Assess the degree to which the important objectives are being achieved (identify discrepancies).
X			A. Set constraints on data collection.
X			B. Set the standards for student performance on objectives.
	X		C. Decide how performance on each objective should be assessed.
	X		D. Collect and analyze information regarding student performance on the selected objectives.
	X		E. Report size of discrepancy.
			Decide which of the discrepancies between present performance and objectives are the most important to correct.
	X		A. Provide alternative methods for determining large, medium, or small discrepancies.
		X	B. Decide what constitutes a large, medium, or small discrepancy.
	X		C. Provide alternative systems for weighing objectives relative to importance, size of discrepancy, and other variables (such as cost and feasibility of achievement).
X			D. Determine the relative priority of each objective, i.e., size of discrepancy relative to rated importance.
X			E. Select the final set of objectives.

Lancaster County School District Needs Assessment

Philosophy

The overall philosophy of the Lancaster County School District Needs Assessment is that the process is an evolving one, a process which is continually "becoming," building year on year in order to expand and change and stretch as the educational process does likewise. In this way, each year will witness the use of the needs assessment as a more effective mechanism for evaluating the strengths and weaknesses of the school program.

Another overriding philosophy of the district's needs assessment, according to County Superintendent John E. Wall, is that, "you cannot have two individuals with identical needs; therefore, you cannot have two schools with identical needs." Thus, the accent in the Lancaster Needs Assessment is on a thorough assessing of needs at each individual school level.

How They Began

The County Board of Education and the County Superintendent of Education were aware of the need to begin a year in advance on the district needs assessment required by the State Department of Education as a part of the Defined Minimum Program. The Board authorized the Superintendent to coordinate the personnel and efforts to initiate and conduct the needs assessment. As their initial steps in conducting the needs assessment, the county and area superintendents set up an Advisory Committee in January, 1974, composed of nineteen representative samplings of principals, teachers and lay citizens.

Who Was Involved

The Advisory Committee involved representative district staff members in in-service sessions with Office of Research personnel from the State Department of Education. In addition to the in-service sessions, the Advisory Committee studied State Defined Minimum Program requirements and several accountability models and then recommended ways to involve staff at each individual school in the needs assessment. The County Board approved the recommended approaches for involving individual school staffs in the process.

Stating of School and Districtwide Needs

The County Board of Education had completed a county philosophy of education, which was adopted in December, 1973. Statements of goals included in this philosophy were used as a base for districtwide and schoolwide goal setting. Area superintendents and principals met with selected central office staff to re-evaluate these goals as stated in the district philosophy. The department of instruction of the central office staff then met with individual principals and teachers at the twenty-three schools to discuss the schools' roles in defining needs. Individual school needs assessments took place between January and March of 1974. Every teacher in each school made input into his or her school's needs/goals statements describing individual school needs. The schools used the March, 1973 district

philosophy originated by the County Board as a base document, but proposed their own unique needs/goals statements. In some cases, faculty committees were formed to develop these; in other cases, individual teachers worked alone. In all cases, the individual schools made these decisions and presented a total school assessment. Test data was used by most of the schools in formulating their needs/goals statements; some schools were more thorough in the use of such data than others.

After the schools had completed their individual needs/goals statements, the Advisory Committee and all principals and other representative district staff attended two workshops with State Department consultants. They examined and re-examined the needs/goals statements stated by each school until they had narrowed down, eliminated, re-grouped, and combined the statements into a refined list of objectives, representing all those submitted by the schools. This listing was completed, approved by the County Board, and submitted to the State Department in June, 1974.

Use of Input Data

Current enrollment data, as well as enrollment projections and job demand projections were used as background statistical data, in addition to BEDS and State Department research data (the district intends to use BEDS and other State Department statistical data more extensively this year).

Evolving Aspect of the Process: Prioritizing Goals

The beginning of the 1974–75 school year sees the second phase of the needs assessment process – a follow-up of last year's school and districtwide statements in order to prioritize these goals by school and by district. In the fall of 1974, each school is receiving a copy of the district listing of goals/needs statements created in May, 1974, by combining all goals submitted by individual schools (the process as described above). This listing is in the form of a rating scale. Each school will prioritize its individual needs by ranking each needs/goals statement from numbers one to five. If any of the schools perceive new needs which are not included on last year's listing, there is a space to include these. If any of the schools feel that any needs have changed this year, there is an area on the listing for re-evaluation or restatement of these needs. Those needs given the highest priority at each school (these will differ from school to school) must be accompanied by written plans to document proposed progress or efforts to begin meeting these needs by February, 1975.

After the schools have completed their individual priority listings of their needs statements, these listings will be sent back to the Advisory Committee, which will determine some overall district priority needs which result from repetitive school needs. Thus, each individual school will maintain its own separate listing of priority needs and work toward alleviating these; at the same time, the district will have an overall listing of general needs statements to which individual school needs statements will apply.

Proposed Changes or Improvements in the Lancaster Needs Assessment Process

District personnel in Lancaster have suggested that improvements in the process would include the involvement of students for their input and more extensive involvement of parents and other lay citizens in the future.

Costs Which Are Involved

Costs for this district's needs assessment include in-service teacher programs (and the costs for substitutes to release the teachers) and costs for special consultants to conduct and assist with workshops or in-service.

Barnwell School District 45 Needs Assessment

How They Started

The district board asked the administration to prepare a three-year plan right after completion of the Southern Association of Colleges and Schools self-study in October, 1973. Superintendent William R. Saffold and Mr. James Benson, assistant superintendent, began by studying strategies used by other districts involved in a similar effort. They also worked with Gary Ashley, executive director of the South Carolina Association of School Boards, and "boned up" on planning textbooks at the University of South Carolina library following these investigations. A decision was made to produce a five-year plan.

Who Was Involved in Goal Statements?

They then began to involve a needs assessment committee, consisting of principals, teachers, guidance counselors, librarians, and representatives from Barnwell High School Student Council, in the needs assessment process.

How Were Goals Formulated?

The two administrators introduced the needs assessment process to the committee by giving them a list of fifteen potential objectives designed to stimulate discussion. State and local test scores of the district students had been used by the administrators to derive these objectives as tentative need statements. It was the responsibility of the needs assessment committee to evaluate the fifteen objectives under consideration – to revise, eliminate, and add;to hash and re-hash – until a concensus could be reached to effectively describe major need areas of the school district.

To compile the objectives, a series of weekly meetings was conducted for four months. Each weekly meeting was comprised of 20–25 principals, teachers, and students from the committee. At each meeting, areas of strengths and weaknesses in the school program were carefully examined.

Needs statements, and consequently goal statements, were thus drawn from informal weekly discussions by the committee, but were supported by state and local student test data, the self-study for the Southern Association, BEDS data, and by input from all industries, businesses, and municipal and county surveys on student enrollment projections.

Use of Input Data

The following sources were tapped to obtain demographic data for analysis of outside influences on student educational needs:

- Barnwell Planning and Zoning Commission census data
- Lower Savannah Regional Planning Council at Aiken projected population data and projected employment by major occupational categories from 1980–1990
- U.S. Bureau of the Census population by racial composition, age–sex distribution, educational attainment of adults 25 and over in 1960 as compared to 1970, percentage of population with no school through college degree, family median and per capita, income trends, percentage of household by cash income groups in 1960 and 1970, employment distribution by occupational category, employment status according to sex 16 years and older, general employment distribution by farm, industry, and other
- U.S. Census of Business: trade trends in1958 and 1967 for city, county and state; trends in retail trades in 1963 and 1967 in city and county
- S. C. Industrial Directory: 1972–73 new industries since 1965 by company, product and present personnel; industrial employment by classification in 1970
- U.S. Department of Labor: national trends in Barnwell industrial job classification by wages and growth rate
- S. C. Department of Education Research Division: Barnwell District school profile; statewide and district achievement test results

"Population projections by local industrial officials and regional planning officers gave us more realistic enrollment projections, showing an anticipated increase of 100 students rather than the predicted decrease of 100 shown in state research figures based on the past," Mr. Saffold reported.

Were Goal or Needs Statements Prioritized?

Rather than assigning priorities to each objective, the whole ten were meshed into a comprehensive annual plan of action which was approved by the board. Following is a listing of the ten continuing objectives which constitute the devised plan of action to meet the stated needs:

1. Each student will have an opportunity to develop a realistic and positive self-concept.

2. Each student will be able to demonstrate computational skills at a level commensurate with his ability.

3. Each student will be able to demonstrate communication skills at a level commensurate with his ability.

4. Each student who aspires to further educational pursuits will be academically prepared to do so.

5. Each student will have an awareness of and will be motivated to participate in the democratic process.

6. Each student will be able to make tentative career choices.

7. Each student will have a positive attitude toward school.

8. Each student will have an awareness of personal and environmental health and safety factors.

9. Each student will be prepared to accept the personal and social responsibilities of being an adult.

10. The community will become aware of the total educational process.

"Our plan isn't just a book but a plan which will be implemented," Mr. Saffold emphasized. "The board has already approved the first building additions proposed; a Parent-Teacher-Student Association, a long anticipated need, has been organized at the elementary school; and an intramural program has begun," he observed. Barnwell High School started operating on a four-quinmester plan in all subjects this fall, following the use of mini-courses last year, and the fifth (summer) quin is one of the ten objectives for 1979. A new tri-county center for handicapped children has also been established in the City of Barnwell.

Informing the Community of the Needs Assessment Operation and Procedures

Approaches to informing the community have included news releases to the local newspaper and radio station, and two newsletters explaining the plan to 4,000 families. Minutes of all District Board meetings are also published in the local press, and board members receive a monthly briefing on progress of the plan. To keep track visually of progress, Mr. Benson is designing a large flow-chart for the central office conference room wall, where the status of each major goal and sub-goal will be posted, along with the names of individuals responsible for its accomplishment and the target schedule for each step.

Costs of Conducting and Implementing Needs Assessment

Since Barnwell District 45 did not employ outside consultants to conduct the needs assessment, their only costs for completing the study involved the typing and duplication of twenty-five copies and the binding of eighteen copies, which amounted to about $2,000.

Costs of implementing the five-year plan are estimated at $66,850 for curriculum and $659,250 for construction through 1979–80, based on an annual increase of 2 percent in district assessed valuation and state funding continuing at present levels based on enrollment. At present the district has no bonded indebtedness.

Conclusions

"This effort has resulted in identification and analysis of the strengths, weaknesses and resources attendant to the district's educational program," Mr. Saffold concludes. "Information of this kind provided the basis for planning strategies to attain objectives designed to correct existing weaknesses. Without such improvements, the time, money and effort devoted to education would be largely wasted. Educational improvement is a continuous process and any time information is available which indicates areas of activity that are not producing acceptable results, the knowledge should be utilized either to improve the activities or to substitute other activities.

"The areas of strength identified should provide leads for doing an even better job when it is needed. Since progress should be continuous and not spasmodic, this document will be modified as available evidence indicates the need.

"In designing goals and objectives, it should be kept in mind that these are to be a part of the on-going educational program of the school system and not something added for window dressing or salesmanship. It is easy to think of plans for improvement in terms of additional personnel, new or expanded activities and a more extensive budget. Some of these areas of expansion have been justified in this document, but consideration has been only in terms of contributions to the educational program itself," he added.

District Models from Other States

San Bernardino, California

The Educational Management System (EMS) set up in San Bernardino, California, is outlined as follows:

> "Educators using EMS will continuously improve their ability to respond to student needs by (1) regularly identifying the most pressing student needs at the classroom, building, and district levels, (2) establishing objectives for student learning in high priority areas, (3) allocating personnel and materials according to objectives, and (4) demonstrating measurable improvements in student performance.[1]

In setting up this system, it was felt that teachers and parents could best identify student needs and select appropriate objectives. The entire district staff, including teachers, was called upon to help plan and develop the EMS. Central staff followed up on these initial efforts with preservice meetings with principals, including small group discussions of practical implementation issues. In addition, the staff assisted principals by making "presentations to school faculties and scheduling individual conferences with principals to discuss areas of concern and needed revisions in the management system."[2] Hence, the "administrative contribution was conceived as one of helping teachers through assisting principals. . . in this manner, the EMS was to encourage decentralized decisionmaking and participative management."[3]

Teachers turned in EMS plans to principals, and principals turned in plans to superintendents. In preparing their EMS plans and statements, principals and teachers followed the basic steps listed below:[4]

1. Define a Mission. This involves identifying one's essential contribution to the organization. It includes answering the question, "If I weren't here, what wouldn't happen?"

2. Identifying Areas of Performance. This includes describing the categories of activities for which one feels responsible. Statements identifying areas of performance should include the broad spectrum of activities that one engages in, including both those which one enjoys and does not enjoy.

3. Identifying Key Results. This involves identifying the most important things to be accomplished in the following year. Key results were defined as intended accomplishments of highest priority, usually a demonstrable change in skills, knowledge or appreciations.

4. Determining Performance Indicators. This involves selecting the kind of evidence to be used in demonstrating the accomplishment identified by the key result. It involves answering the question, "When the key result is accomplished, what sort of things should I be able to observe?" Performance indicators are directly related to key results.

5. Statement of Objectives. This requires specifically stating, as precisely as possible, what one intends to accomplish and how the accomplishment will be assessed. An objective is:

> "Specific and measurable outcome characterized by identifying (1) who is going to demonstrate the intended behavioral change, (2) what behavior and capabilities are to be acquired, (3) in what area, (4) when the change will be accomplished, (5) how the behavioral change will be measured or demonstrated, and (6) what proficiency level is appropriate."

One principal identified the following objective:

> "Teachers will improve their skills in the use of classroom aides by June 1 as measured by (1) 90 percent of the faculty preparing a use schedule outline of their aide's time allotment in the instructional component, (2) all qualified faculty members increasing attendance at in-service meetings regarding improvement of aides' effectiveness, and (3) increasing frequency of positive evaluation comments by aides as they react to their assignments."

A teacher identified the following objective:

> "At the end of the 35-week period, given a simple subject, 85 percent of the students will be able to write an original paragraph of at least 50 words in length containing a topic sentence, a well-developed body, and a concluding sentence."

It was emphasized that the important issue was one of identifying an intended behavioral change and the evidence that one would be willing to accept in demonstrating that change.

6. Development of a Work Plan and Monitoring System. This involves identifying the sequence of activities necessary to achieve the objective including (1)

identification of required resources and (2) milestones for collecting evidence to reflect interim progress toward objectives. These plans identify the general strategies to be used in accomplishing objectives. Most importantly, they schedule periodic collection of information regarding progress of the program. These interim progress reports provide an opportunity to revise programs in midstream.

7. Performance Review. These reviews include a comparison of actual with intended results together with the setting of priorities for the following year. The most important component, however, is the opportunity for principals to discover how to help teachers.

"All principals and a large number of teachers wrote objectives which specified what was supposed to be learned, when it was supposed to be learned and how it would be measured."[5] Teachers' objectives were most often stated in terms of staff development or improved quality of service.

Following the identification of the objectives at the school level and the means to measure their accomplishment, alternative programs were considered to foster accomplishments of the objectives. Strategies were specified, monitoring procedures were established, and regular feedback on results was obtained.

Midyear and end-of-the-year small group conferences were held to assess interim results, to share experiences, and to plan for the next year.

In the January newsletter of the San Bernardino Teachers' Association, was the following quote:

> "An accountability system has within it the potential for destroying paternalism within the school system. The crucial question is the teacher's ability and desire to make accountability flow upward and not downward. The problem is less one of teachers being held accountable and more one of administrators being held accountable. They should answer for books, materials, supplies, building design, bus schedules, and all the other components which give the teacher the time and flexibility he needs to do the best possible job imaginable. Let's stop being defensive; we are not here to serve administrators; they are here to serve us. Accountability used in this way should rightly destroy paternalism; only time will tell if administrators and teachers are capable of this kind of change."[6]

Another off-shoot of the EMS development in San Bernardino was the district realization of the need to devise more effective measurement instruments, such as criterion-referenced tests, to measure student accomplishment of objectives. In addition, the district also recognized the need to measure inputs from out of school factors before assessing student achievement.

A management information system is being designed for the district to include data processing resources for recording data on student progress as measured on criterion-referenced instruments.

A Resource Allocation Model is being planned for the distribution of "personnel and material resources according to identified student needs."[7] Such a model is intended to allow for (1) "basic comparability between resources allocated to different schools and (2) providing for special allotments according to building level and district priorities."[8]

In summary, "it seems apparent that San Bernardino's Educational Management System has offered staff members the freedom to be responsible. It was predicated on the belief that the teachers know best what kids need and how to meet their needs. Administrators adopted a service orientation, helping teachers to reach their objectives. Teachers and administrators jointly agreed upon objectives, resource requirements and instructional strategies. There was a sharing of accountability for results. In conclusion, it should be noted that the notion of sharing accountability for results can be expanded to include skeptical legislators and questioning parents. Legislators must recognize the importance of supporting school districts who are willing and able to demonstrate results in terms of student learning. Parents must recognize that their interest and support for the instruction program is crucial for the occurrence of successful learning. A public, understandably concerned about how its schools are doing their job, must realize that it too has to be held accountable."[9]

DALLAS, TEXAS[10]

Gap – a discrepancy between "what is" and "what should be," a need.

Operation Involvement – a 600-member committee of students, parents, teachers, principals, central office staff and other school employees that assists the Board of Education in assessing needs, assigning priorities and allocating resources as a part of the annual budgeting process.

DALLAS

The purpose of the Dallas planning process is to assist the Board of Education and the administration in assessing needs, assigning priorities and allocating resources as a part of the annual budgeting process. The two major groups involved with the board are:

1. Program Managers – appointed for each of the district's long-range goals, responsible for evaluation and development of objectives and program budgets.

2. Operation Involvement – a committee of teachers, students, administrators, parents, and community persons which assesses needs, prioritizes them and allocates resources among programs.

The annual budgeting process has ten phases:

1. Evaluation
2. Needs Assessment
3. Goal Determination
4. Cost Determination
5. Feasibility Study
6. Prioritization
7. Resource Allocation
8. Operational Objectives
9. Public Hearing
10. Adoption by Board of Education

Program managers monitor the progress of their portion of the budget throughout the process. The Operation Involvement representatives are involved in four different ways:

1. At monthly small group meetings throughout the year, representatives examine particular district programs as well as study and discuss goal priorities and costs.

2. A needs assessment survey during Phase 2 prioritizes needs and determines the largest gaps between what is and what is desired.

3. The entire Operation Involvement group meets preceding each of the board's weekend retreats on the budget to establish a concensus on recommendations to the board.

4. Representatives of the small groups attend two of the board's budget retreats: during Phase 2 to present goal priorities, during Phase 6 to recommend priorities for goals based on their budget cost.

DALLAS PLANNING MODEL

The purpose of the Dallas planning process is to involve educators, students, parents and the community as well as the Board of Education in assessing needs, assigning priorities and allocating resources as a part of the annual budgeting process.

WHO IS INVOLVED?

1. Board of Education

2. Program Managers – appointed for each of the districts' seven long-range priority goals, to insure continuing progress of the planning process. They are responsible for evaluating program accomplishments and developing specific objectives and program budgets for five-year periods.

3. Operation Involvement – a 600-member committee which includes a representative of each school's teacher advisory committee, 45 students, 20

parents, principal representatives, central office staff and members of the District Communications Committee which represents all district employee groups. Representatives can be appointed, elected, or can volunteer or serve automatically because of job held. Citizens who are not parents can also be included. Outside technical consultants are not a formal part of the model.

IS GOAL DETERMINATION THE FIRST FORMAL STEP IN THE PROCESS?

No. Within the budget cycle, evaluation and needs assessment precede goal determination. Since the evaluation phase focuses on programs of the previous year, the needs and goal definition phases are also program-oriented and therefore possibly not comprehensive. In initiating the process, however, the board first elicits goal suggestions from staff, students and community members for establishing long-range (10 year) goals. Thus, this set of separately defined goals balances out, to some extent, the program focus of the yearly planning process.

HOW ARE NEEDS ASSESSED?

1. Program managers evaluate the accomplishments of on-going programs in light of the previous year's goals (or the long-range goals, if no other exist) and report findings to all individuals involved.

2. Smaller 24-member committees of Operation Involvement meet monthly to focus independently on various areas of the school program, in addition to reacting to feedback from program managers.

3. Individual perceptions of needs are collected through a needs assessment survey in three steps.

   a. Various district functions, programs and activities are rated with a number from the following scale to describe the current condition.

Receiving Entirely Too Much Emphasis	Receiving More Than Adequate Emphasis	Receiving Adequate Emphasis	Not Receiving Adequate Emphasis	Receiving Not Nearly Enough Emphasis
15 14 13	12 11 10	9 8 7	6 5 4	3 2 1

   b. The same items are then rated according to the scale below to indicate the desired future condition for each item.

Substantially Decreased Emphasis			Decrease Emphasis			Continue Present Emphasis			Increase Emphasis			Substantially Increase Emphasis		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

c. For each item rated as needing increased emphasis in the future, or as receiving too much emphasis currently, opinions regarding specific problems or areas of over-emphasis are elicited from individuals.

4. Needs assessment survey results are compiled for each interest group and for the group as a whole indicating priorities desired and areas with the greatest gaps.

5. Representatives of all the small Operation Involvement groups meet with the Board at its first weekend retreat on the budget to respond to and revise compiled needs.

6. Based upon new needs, gaps are identified representing the discrepancy between the actual status of programs and the desired status.

HOW ARE GOALS DETERMINED?

1. Based upon previously established needs, program managers select goals to be worked on during the year.

2. Managers then design the vehicle (project) that will be used to accomplish the goal.

3. Results are communicated to all schools as well as Operation Involvement in the form of budget guidelines.

HOW ARE GOALS AND NEEDS CONVERTED INTO PROGRAMS AND POLICIES?

1. Program managers estimate the cost of each goal and its component objectives and tasks.

2. Managers examine each goal in terms of payoff and risk.

3. Results are communicated to all parties for their examination and feedback.

4. Representatives of small Operation Involvement groups rank all goals while attending the Board's second weekend retreat on the budget.

5. Based upon previously established priorities, each goal is assigned by rank order the necessary resources for its accomplishment until all available funds are exhausted.

6. Managers restate each goal into operational objectives for inclusion in the budget, using standard district budget terms.

7. Proposed budget is presented for a public hearing and appropriate adjustments made.

8. Proposed budget as adjusted is adopted by Board of Education.

HOW ARE PROGRAMS AND POLICIES IMPLEMENTED?

Budgeted programs are implemented within the existing administrative mechanism, and become subject to the evaluation phase of the planning model at the beginning of the next budget cycle.

1. Program managers secure all pertinent information relating to areas of concern, such as: test scores, evaluation reports, process reports, etc.

2. Managers analyze all information to determine successes and failures in terms of the established goals for that program year.

3. Managers determine the remaining gap (if any) between current program status and the desired status in terms of both one-year, and long-range objectives.

4. Remaining discrepancy is communicated to all participants in the planning process for utilization in the needs assessment phase.

Detailed Theories and Practices

There is no one "standard" or "ideal" way to conduct a district needs assessment. School districts nationwide have chosen any number of approaches to their needs assessments. However, certain common features in many effective district needs assessment programs include: (1) creating a child-centered needs assessment, (2) selecting an approach within the capacity of the district to implement, (3) using the results as the basis for establishing goals and priorities for examining the alternatives and for developing programs.

There are a variety of definitions for the needs assessment process. For example, the State Needs Assessment Study, conducted the University of South Carolina, defined needs assessment as the process of determining discrepancies between desired states of affairs and actual states of affairs in the educational program.[11]

Dr. Samuel M. Goodman, director of the Quality Measurement Project in New York State summarized the purposes of assessment as "the development of a method to assess the quality of education provided by school systems"[12] and to provide administrators with effective procedures for identifying means to achieve improvements.

The Virginia State Department of Education Needs Assessment Study, undertaken in 1969, defined needs assessment as identifying "evidence of a gap between an educational goal or objective and evidence of educational outcome."[13]

ANALYSIS BEFORE BEGINNING NEEDS ASSESSMENT

Questions considered by a district before initiating a needs assessment include:

How Much?	What funds, if any, are needed to conduct the needs assessment? If additional funds are needed, what will be the source?
Who?	Who will be involved in conducting the needs assessment?
What?	What overall goals will be measured by the needs assessment? (overall, in terms of broad district goals, as well as classroom and student performance goals)
How?	What types of testing programs will be used?

What kinds of measures?

Which domains will be explored?

Will test data be related to community factors?

What sampling of studies will be touched by the testing?

How and by whom will test data be used?

Determining Data to be Collected for Needs Assessment

Many different kinds of data can be drawn for determining areas of greatest need. To identify which goal areas are not being met, the following kinds of data may be collected.

1. Population and age distribution
2. School enrollment, including private schools
3. Births and age distribution
4. Achievement test results
5. Records of dropout rate, causes, and characteristics
6. Community characteristics: Socio-economic, industrial, agricultural, commercial, cultural, crime and delinquency rates, recreational opportunities.
7. Community attitudes, life styles, demands on school, traditions and mores, politics, values.
8. Community, state and national job opportunities and basic qualifications
9. High school graduates who entered college and other training
10. The organizational structure for school district administration
11. The professional staff
12. The non-professional staff
13. The program of instruction
14. Financial resources (state, federal and local)

15. Condition of school buildings and grounds

16. Bus transportation system

The definite influence of factors upon the student outside school are extremely important and are measured along with achievement. Such data can be collected through any number of methods: management information systems, testing programs, and county and municipal statistics.

Use of Management Information Systems

Information on the nature, cost and effectiveness of many kinds of educational programs in school districts can be obtained through instruments built into management information systems. Examples of such systems include PPBS (which attempts to relate program benefits to program costs) in California and Program Analysis and Review in New York State.[14]

In South Carolina, the beginning of a management information system has taken shape in the form of BEDS (Basic Educational Data Series), a new state system consolidating current and future data collections concerning district programs and personnel into a central computerized file. The BEDS System has already been of definite assistance to districts in their needs identification processes.

Use of Statewide and Local Testing Programs

"There is a mounting legislative pressure for documenting the products of the educational process by statewide testing programs."[15] Only a very few statewide testing programs go beyond assessing the success of their educational systems in basic skills instruction. Rarely do statewide testing programs assess the effect of the educational program on student values and attitudes.

However, the current testing program in South Carolina measures student performance in the basic skill areas of math, reading, language arts, as well as in scientific literacy and in self-concept development. The California Test of Basic Skills is being used to measure achievement in basic skill areas, while student self-concept development is being measured through the Student Survey Inventory. In addition, the choice of instruments to measure personal health and safety habits is currently under consideration. And the use of national assessment data instruments is being considered for measuring environmental literacy, as well as knowledge, skills, and aesthetic understandings in the cultural arts (including visual arts, music, and literature).

The use of additional district test results can augment the use of statewide test data in district needs assessment.

Use of Local Community Statistical Data

Utilization of community and metropolitan statistical data can assist in assessing the effects of community and home environment, of teachers and school programs, and of school facilities and financial resources on the outcomes of education.

Assessment of Affective Development

Some states and districts are beginning to recognize the importance of measuring affective development of their students and community. For example, Pennsylvania has produced instruments to measure how the educational program is affecting such aspects of life as self-concept, understanding others, responsible citizenship, creativity, health habits, acquiring salable skills, understanding human accomplishments, readiness for change, and students' attitudes toward schools.

Determining Which Students to Sample

Districts can choose a sampling whereby only representative groups of students from representative age groups are tested, or "every pupil" is tested. Districts wishing to obtain information about the level and progress of a district's educational system as a whole need to use only a sampling approach. Districts choosing to return information to each school for self-appraisal and guidance of individual students need to assess "every pupil."

STEPS INVOLVED IN NEEDS ASSESSMENT PROCEDURES

Steps involved in conducting a needs assessment can be set up in any number of ways, depending on the nature of the program. The TRENDS Needs Assessment Model outlined the following essential tasks.[16]

1. Agree on the basic policy decisions.
2. Describe the approach.
3. Develop the methodology.
4. Conduct the assessment.
5. Analyze the outcomes.
6. Select priority goals and objectives.
7. Translate data for program planning.

And in outlining the approach to be used in conducting the needs assessment, the TRENDS Model detailed the following steps.[17]

1. Define who is to be responsible for each of the activities of needs assessment.

2. Establish a time schedule and sequence of activities.

3. Select the sample of students to be assessed.

4. Review existing data available within the school system.

5. Formalize each of these steps into the LEA's Needs Assessment Plan.

The EPIC Evaluation Center outlines the following steps as essential to a valid educational needs assessment.

1. Determine expected or desired student performance and state performance in terms of behavioral objectives.

2. Measure student performance to determine whether it reaches or falls short of the performance specified in the objective.

3. Identify as educational needs those situations where student performance is below that specified in the behavioral objectives.

The description of the TRENDS Model of Needs Assessment states that "Needs assessment is the first, basic cornerstone of educational planning. It provides the school with essential information on the student educational and development problem areas most in need of attention. It provides the base for program development, budgeting and cost analysis, program monitoring and program evaluation."[18]

In the Project TRENDS Needs Assessment Model, "the primary reasons for conducting needs assessment are to assist the school principals, the program and curriculum planners and the educational policy decision-makers of the local school system in cooperation with the Community Planning Task Force to:[19]

- determine whether and how well the students of the school are acquiring the skills, knowledge and attitudes proposed by the school's educational goals.

- help identify students who are not achieving either up to a given grade level or up to their potential.

- probe further into the underlying reasons why a child is not achieving with respect to an educational or developmental goal.

- decide what type of child-centered compensatory educational program is needed, whether an existing program should be modified or eliminated, and how effective (in a cost-effectiveness sense) an educational program should be for meeting the needs of disadvantaged children.

- provide student developmental need and performance data for use by other community agencies responsible for serving disadvantaged.

- use more effectively their educational resources, not only to serve disadvantaged, but to develop children school-system wide."

STATEMENT OF BROAD EDUCATION GOALS

In outlining a set of broad educational goals, the cooperation and involvement of citizens are often needed. In Wichita, Kansas, approximately 175 persons, lay and professional, were involved in an educational conference held on December 6, 1972, for the purpose of "exploring the educational needs and concerns of the Wichita community."[20] The official statement of purpose for the conference was "to explore the educational needs and concerns of the community for the purpose of redesigning educational goals and establishing priorities for the Wichita Public School System."[21]

The 175 conference participants included members of the school-community advisory committees, students, teachers, administrators, and representatives of agencies, organizations, businesses and industries. In addition, the superintendent of schools and thirteen members of his administrative advisory cabinet provided information, as resource persons, to the discussion groups.[22]

In both morning and afternoon sessions, conference participants broke into small group discussions with ten participants per group in order to discuss the ten priority topics. "As might be expected, different groups focused upon different aspects of the topics being examined. Also, agreement was not always reached within groups. . . Many concerns were expressed, and numerous needs were identified."[23]

Selecting Raters to Rank the Broad Goal Statements by Priority

"It is highly unlikely that various groups such as school administrators, teachers, parents, and students will agree as to what are the most important objectives for the educational system to achieve."[24] Thus, most large school systems, in conducting and basing program planning on a needs assessment, must decide which educational objectives will receive the high priorities, and consequently, resource allocations. Smaller school districts, however, may often find it unnecessary to prioritize need areas or objectives, finding that several major need areas may be given equal priority.

For those districts choosing to rank their need areas, "The question of who should be involved in the selection of the most important objectives is a question that each education

agency must answer for itself."[25] Local agencies may use all, or combinations of, the following groups of people in the selection of priority objectives: superintendent, assistant curriculum staff, principals, teachers, parents, and even representatives from student groups. Usually, a representative sample from each group being used as a rating group is drawn together as an ad hoc committee to rate the objectives.

Two possible sampling techniques for identifying the representative samples of raters came from the Charleston County Needs Assessment Workshop.

Selecting Raters by Random Sampling

The major concern in random sampling is to insure that raters are chosen in a completely unbiased manner. One such random procedure is described below:[26]

1. Obtain an alphabetical roster of the potential raters. If the raters are to be parents, the roster would be a list of the school's pupils (do not include the parents' names more than once if they have more than one child enrolled in the school). If the raters are to be selected from the general community, a list of public utility users or county residence lists could serve as the roster.

2. Decide on the number of raters (R) to be used. Between twenty and fifty raters will usually be sufficient to give a fairly accurate picture of a local constituency's priorities. If the sample is to be from a city or large district, a larger number of raters is desirable.

3. Determine the total number of names (N) on the roster being used.

4. Divide N by R and round off to the nearest whole number (n). For example, if there are 600 parents (a mother and father counted as one parent) and the number of raters is to be thirty-five, divide 600 by thirty-five to obtain 17.14. This number is rounded to seventeen.

5. Select every nth name on the roster. In the example above, every seventeenth name would be selected until thirty-five names of raters were obtained. If the end of the list is reached before the desired number of names is obtained (due to rounding off in step 4), go back to the beginning and select every nth name from those remaining on the roster, until N names are obtained.

Selecting Raters by Stratified Sampling

Stratified sampling from a community must be based upon accurate knowledge of its composition to ensure that each sub-group of the population is represented proportionally. Potentially important population characteristics are type of occupation, socio-economic level, ethnic origin, and amount of education. Frequently, prinicipals who have resided in or

near their school's community have accurate knowledge of the characteristics of the population. Sources such as the U.S. Census Bureau's *General Characteristics of the Population* may be consulted.[27]

Some technique of combining objective ratings across different groups of raters is necessary in order to arrive at a composite score for each objective's relative importance as ranked by several groups of raters. The following section summarizes four different methods for combining ratings.

1. The Simple Average Among Raters —"taking the simple average rating for each objective across all raters"[28] (automatically giving the most weight to the largest group of raters).

2. Average Rating by Group — taking the average rating for each group (automatically giving equal weight to each group).

3. Assigning Equal or Differential Weight to Subgroups of Voters. In assigning equal or differential weights to groups of raters, two groups may be assigned equal weight; and this weight may be twice that assigned to a third group, or one group may be assigned twice the weight of another. "Assigning equal weights to raters has the advantage of being understood easier and is less subject to political upheavals regarding what weights should be given to what groups. Differential weights have the advantage of allocating relative degrees of importance to various groups."[29]

4. Degree of Agreement Among Highly Rated Goals and Associated Techniques Emphasizing Consensus and Compromise. This technique focuses on the highly rated objective areas, and the highly rated objective areas in each group are given greatest weight, rather than merely averaging across groups. Attention is focused on "(1) Objectives receiving high ratings by most of the groups; (2) Objectives rated highly by just one or two groups."[30]

Some districts may choose to rank their goals by individual school, thus having a different set of priorities in each school.

Translating Broad Priority Goals into Behavioral Objectives

In narrowing a broad goal into behavioral objectives, the performance or behavioral objective needs to describe exactly "what is to be achieved by whom and under what conditions."[31] The TRENDS Needs Assessment Model outlines facets of behavioral objectives as follows:[32]

1. The objective is behavioral; it describes a particular facet of child development behavior in response to internal and external stimuli.

2. The objective is measurable; it can be measured by a particular test, can be assessed by interviews or diagnosis or can be ascertained by observing particular discrete activities (e.g., attendance).

3. The objective precisely identifies the person or group to which it relates (e.g., sixth grade students in the Madison School reading one year below standard).

4. The objective includes a time constraint (i.e., a specified length of time required in which the objective is to be addressed, e.g., during the next nine months).

5. The objective states a level of attainment or a measure of improvement for pupils (e.g., two grade levels; twelve points on a selected testing instrument).

6. The objective is stated in cognitive, social, behavioral, personal development, or environmental reinforcement terms.

Standards of Performance to Correspond With Behavioral Objectives

In setting standards of performance to correspond with behavioral objectives, standards may be assigned to two types of areas: (1) the academic educational objective and (2) the more subjective attitudinal or motivational educational objective.

Expected performance with relation to highly rated educational objectives may be based on (1) projections or standards related to similar populations; (2) a careful examination of longitudinal data to provide information about consistencies or changes in performance over a period of time; (3) an examination of predictor variables known to influence learning readiness and educational performance (age, health, educational and environmental backgrounds, and language spoken at home); and (4) a mathematically derived consensus of opinion from parents, teachers, and administrators concerning expectations for students.

The desired level of performance may also be determined by establishing a model or standard for the student in a given age/academic/intelligence group. There are several possible models a school system may choose.

1. The minimum acceptable – "a child meeting minimum standards of achievement and development consistent with his age, grade and intelligence level."[33]

2. The median average – "a child meeting the median or average achievement and development level (such as an average statewide score)."[34]

3. The ideal or excellence standard – "a level of achievement and development which the school continually strives for in its pursuit of excellence and quality education."[35]

Variables Considered in Writing Objectives

The following broad range of developmental areas are often recommended for assessment with the additional recommendation that general child-centered goals be listed under each category.

1. Cognitive

2. Affective (or social, behavioral)

3. Physical (or personal, sense of well-being)

4. Environmental support

To further specify variables for use in writing behavioral objectives, the National Academy for School Executives suggested a common format for writing all levels of objectives. Such a format entails the defining and use of a given set of variables. The following set of variables is recommended by the model for use throughout the process of writing all levels of objectives:[36]

Instructional Dimension

I. Organization for instruction

A. Time-duration and sequence of time devoted to instruction

B. Space

1. Vertical organization: graded or nongraded

2. Horizontal organization

a. Self-contained
b. Departmentalized
c. Cooperative teaching (for example, team teaching)

II. Content

Subject matter of a discipline

III. Methodology

A. Teaching activities (e.g., lecture, discussion, individual study, debate, etc.)

B. Types of interaction

1. Teacher – Student
2. Student – Student

3. Media – Student
4. Teacher – Teacher

IV. Learning theory

Differences in learning styles of individual pupils

Instructional Dimension

V. Facilities

Space, special equipment and expendables needed to support a program.

VI. Cost

Money needed for facilities, maintenance and personnel for a particular program.

VII. Student population

Unique characteristics and qualities

VIII. Teacher, administrator, and educational specialist

A. Identification data

B. Educational background and work experience

C. Environmental factors

IX. Family

A. Degree of involvement with program

B. General characteristics

C. Education

D. Affiliations

E. Mobility

X. Community

A. Geographical setting

B. Historical development

C. Population characteristics

D. Economic characteristics

E. Social characteristics

Behavioral Dimension

XI. Cognitive behavior

A. Recall)
B. Comprehension) of knowledge
C. Application)

D. Utilization of intellectual skill of

1. Analysis
2. Synthesis
3. Evaluation

XII. Affective behavior

Interests, attitudes, values, appreciation, and adjustments of the individual

XIII. Psychomotor behavior

Thus, in defining three major variables from the institutional, instructional and behavioral dimensions, there is the breaking down of variables into finer levels of specificity as the behavioral objectives are restated from the state level down to the school, and even to the individual student level.

Unit	Institutional Variable	Instructional Variable	Behavioral Variable
State	Student	Content	Cognitive
District	Lower Elementary	Reading	Knowledge of specifics
School	First Grade	Vowel Recognition	Knowledge of terminology
Student	Bob	Recognition of vowel "e"	Visual and auditory association of vowel "e"

"By using the same procedure of writing behavioral objectives at various levels of specificity, one is able to trace back through the various levels of abstraction and determine the level of attainment of any objective at any level of specificity."[37] When determining which variables should be included in a particular objective, each variable along the behavioral, instructional, and institutional dimensions should be considered to determine whether it directly affects the aspect of the program under evaluation.

According to this model, "the objectives of a program would thus contain the following information:[38]

1. Institutional variable
2. Instructional variable
3. Behavioral variable
4. Proficiency level
5. Time needed to bring about desired behavior
6. Method of measurement."

SELECTING SAMPLING PROCEDURES FOR ASSESSING PERFORMANCE OF CERTAIN STUDENT GROUPS

The TRENDS Needs Assessment Model recommends including as many grade levels and as many schools as possible in the assessment. The reason for recommending such a wide coverage of grade levels is to enable the identification of a broad diversity of problem areas. Some problems need to be detected in early grades; others do not occur until later grades. The recommendation for including a wide coverage of schools is made in order to stress the importance of identifying unmet systemwide needs so that a district has a comprehensive view of the needs its schools are failing to reach.

In developing the needs assessment methodology, schools may be grouped by grade levels or by concentration of some variable (for example, the disadvantaged). In selecting a truly representative sampling of pupils, the school system wisely begins building the assessment from the individual school building upward, for the needs of children may differ more extremely from building to building than by any other variable.

After identifying the sampling of schools to be assessed, the next step is to identify grade levels. In identifying sample grade levels, this model recommends giving careful attention to existing testing programs such as statewide testing programs and existing data from federal reporting programs (such as CPIR), and to critical grade levels.

A possible sampling of grade levels might include:

- Elementary Grades – 1, 2, 4, 6; with two homerooms from each grade
- Junior High School – grade 8; every homeroom
- Senior High School – grade 10; every homeroom.[39]

After sample grade levels are chosen, pupils are selected for the sampling. A very simple technique is merely to have the homeroom teacher select every sixth pupil in the class.

The CPIR suggestion for representative student samplings from the classroom is outlined as follows:

Class Enrollment	Selected Pupils				
11–16	2nd	7th	11th		
17–20	1st	6th	11th	16th	
21–23	4th	9th	14th	19th	
24–27	3rd	8th	13th	18th	23rd
28–31	2nd	8th	14th	20th	27th
32	3rd	9th	15th	21st	28th
33–36	1st	8th	15th	23rd	31st
37–41	6th	14th	21st	29th	36th
42–46	5th	13th	24th	33rd	40th
47 or more	4th	15th	25th	35th	44th[40]

"There is seldom any difficulty in collecting enough information about what people think the schools are and are not achieving. In fact, the problem is usually that there is too much information. The problem is to get reasonably accurate and comprehensive information which does not jeopardize the ability to analyze, interpret, and summarize it by the date on which a decision must be reached.

"Sampling techniques can significantly reduce the time, money, and effort required to collect, analyze, interpret, and summarize data from a group, without seriously affecting the accuracy of that information. These savings can be 'invested' in collecting information from other sources, to obtain a more complete picture of the actual situation.

"By turning to a wide variety of sources of information, a reasonably accurate idea of the actual achievement of students on important objectives can be obtained."[41]

SELECTING TEST INSTRUMENTS FOR MEASURING STUDENT PERFORMANCE

After selecting a sampling of students for measuring student performance, the next step requires "collecting information about present student performance on each important educational objective and comparing the results with a desired standard of performance."[42] Such student performance can be collected from (1) objective tests or (2) more informal, subjective data collection methods.

Selecting Measurement Instruments

In building a system of needs assessment, the following items are recommended for consideration in determining the means for collecting the required information.[43]

> Test data is generally more reliable and valid than other assessment techniques, such as interviews.

- Some measures are obstrusive in the sense that they interfere with the measurement process itself, especially in measuring social, behavioral development. When this occurs, it may be desirable to use unobtrusive indices, such as attendance records, incidence of vandalism and theft, etc.

- The evaluator should not limit himself to tests and records, but should be open and willing to collect other kinds of pertinent information which provide both direct and background information on the achievement of the school's students (parental reinforcement, economic data from local anti-poverty agencies, etc.).

Objective Methods of Data Collection

Tests for collecting student performance data for the needs assessment may be classified in the following ways: (1) standardized tests or norm-referenced tests, (2) objective-referenced or criterion-referenced tests, and (3) locally developed tests.

Generally, locally prepared tests do not measure a broad enough area to be satisfactory for use in a districtwide needs assessment of student performance.

Norm-referenced tests (NRT's) determine how the individual student measures on a particular trait relative to other students taking the same test. "Thus the student is ranked according to the scores that are usually earned by representative groups of students taking the test."[44]

Criterion-referenced tests (CRT's), in contrast, measure carefully defined, highly specific performance objectives stated in observable behavioral terms. "The student is not compared to other students but, rather to his status with respect to these standards – can he or can he not perform certain well-defined tasks. The CRT's identify students who have or have not attained a certain standard of performance; e.g., they can add two digit numbers with regrouping."[45] When a decision is being made as to the next instructional treatment to be tailored to an individual student's needs, the diagnostic information provided by a CRT identifying mastered and unmastered skills is most useful.

Thousands of standardized tests are available from test publishers. Such tests, for any one subject or purpose, "vary widely as to emphasis, quality, students for which they are appropriate, useability, and cost."[46]

"An evaluation team is faced with the difficult task of selecting the most appropriate test(s) for a particular purpose."[47] Before selecting the instrument that best fits their purposes and needs, the team needs to study carefully their purposes for measurement and define their measurement needs. The test selection process then "requires a critical evaluation of candidate tests to arrive at those best suited for a needs assessment in a particular educational situation."[48]

Statewide test data already available is certainly one valid source of data and may even serve as the only source of objective test data. However, in the instance that additional local test data is desired, an evaluation team may take the following approaches in selecting appropriate tests.

Studying the Test Manual

The test manual, as well as the test booklet, comprise the principle source of information about the technical quality of the test. These two sources enable the "qualified user to make intelligent judgments regarding the usefulness and interpretations of the test in a particular situation."[49]

Applying Technical Standards in Selecting a Test

The "Standards for Educational and Psychological Tests and Manuals," formulated by the American Psychological Association in 1966, "offer an excellent source for establishing criteria to judge candidate tests that might be appropriate for use within a given setting."[50]

Test Reviews

Another very valuable source for use by an evaluation team in selecting appropriate tests to assess current student performance is the test review series, *Tests in Print*, by O. K. Buros. This test review series provides for identifying candidate tests for the particular district needs assessment by giving the title of the test, a description of appropriate grade levels for using the test, a brief description of content, publication dates, author(s), publisher, and references to critical reviews of the standards and quality of the particular test.

Reviewing Existing Data

In many instances, a supply of past records as well as current means for collecting student data, such as current local and statewide testing programs, can be used to collect the required data for parts or all of the needs assessment. However, "where gaps and needs for new information are identified, the school system should expand or modify its assessment and testing program."[51]

Estimating the Quality of Each Source

In judging the quality of the assessment from a particular source or method of measurement, the following factors should be considered.[52]

1. Comprehensiveness: Is the information complete?

2. Relevance: Is the information provided actually needed?

3. Validity: Is the information likely to be accurate?

A number to indicate the quality of the information source or method of measurement can be assigned, based on such factors as those listed above. Such a numerical scale might look like this:[53]

3 – A good source of information, such as a respected, nationally-normed, standardized test or the judgment of an expert with little reason to be biased in the particular circumstance.

2 – A fair source of information, such as less reliable and/or nonvalidated tests, the report of a committee of parents, or the judgment of several teachers.

1 – A poor source of information, such as the opinions of laymen expressed in letters, or anecdotal evidence from conversation, speeches, and so forth.

Clarifying Uses of Both Norm- and Criterion-Referenced Tests

"The difference between norm- and criterion-referenced approaches is not in the measurement, but in the interpretation of the results of that measurement."[54] Both types of interpretations (and thus both types of tests) are probably needed for the following four diverse purposes for which an evaluation might be conducted.[55]

1. Identifying program components that need improvement.

2. Identifying students needing special attention.

3. Providing the basis for teacher accountability and school accreditation systems.

4. Determining whether a program is being implemented as planned.

USE OF INFORMAL CHECKS AND SUBJECTIVE INFORMATION SOURCES

There are a variety of subjective instruments and measurement devices for use in assessing student performance.

Attitude Scales

Attitude scales can be valuable in a needs assessment for they contain questions calling for an individual's "opinion" about an area the evaluation team is attempting to assess. An index of group attitudes is obtained by combining these "opinions" in various ways.

Interview

The advantages of the interview are that "it is adaptable to a wide variety of respondents, topics and situations, and is uniquely suited to an in-depth exploration of an issue."[56] Two types of interviewing include the unstructured interview, which is informal and allows for in-depth probing, and the structured interview, which has the restrictions of special wording and sequencing of questions, and should be used when a number of interviews must be highly comparable.

Interview data is often difficult to summarize and interpret because it is not completely possible to control or estimate the effect of differences among each interview situation.

Questionnaires

The advantages of using questionnaires include: (1) they can be collected by mail and are an economical way of collecting a lot of data, (2) they are well-adapted to sampling techniques, and (3) they allow for anonymity which encourages honesty and frankness.

Disadvantages are that: (1) unbiased or neutral phrasing of items is difficult to achieve; (2) respondents are seldom equally informed on the major issues of the questionnaire; and (3) the longer the questionnaire, the lower the return rate – the shorter the questionnaire, the lesser the amount of information.

Rating Scales and Checklists

The effectiveness of on-site observation of actual behavior can be highly improved by the use of rating scales and checklists. Disadvantages of the use of such scales and checklists include (1) the effects of rater's personality, methodology and personal biases on the rating, and (2) vague descriptions of what is to be rated.

Unobstrusive Measures

Two types of unobtrusive measures (where the subject is unaware that data is being gathered about him) include records and observations. Though they are relevant only to a limited number of objectives, records provide effective access to unobtrusive data because they are permanent and up to date. The hidden observation method of unobtrusive measurement is effective in obtaining data about attitudes since the subject is unaware of being observed.

Community Groups

Important opinions and valuable information can often be gathered from community groups through attendance at meetings, copies of minutes, publications, reports and interviews with officers.

Summary

Formal test instruments should be supplemented with informal teacher assessments and indexes for measuring social and behavioral development. Supplementing formal testing with informal measurements prevents the biased effect of strictly cold numerical data.

ADMINISTERING, PROCESSING AND STORING TEST RESULTS

To summarize the above sections on selecting both objective and subjective test instruments, the following major steps precede the administering of tests.

- Design the actual formats and questionnaires to be used in assessing each child in the sample.
- Based on the review of existing data, select new (or already available) tests to back up the questionnaire.
- Establish the operational procedures to be followed in carrying out the assessment.
- Insure that a variety of means exists for cross-checking and validating both the questionnaires and the test results.

Administering the Tests

The actual execution of the needs assessment begins with the diagnosis of the individual child. Detailed directions for administering the specific test selected for the assessment usually accompany the test in a separate manual. Favorable testing situation, conditions and environments should be fostered just as they are in any other positive testing climate.

"It is generally useful to conduct a pre-test on which to plan next year's programs and a post-test to measure the effects and success of that program."[59]

Analyzing Outcomes, Including Test Results

"This task is one of the most difficult to carry out well and school systems, generally, lose a major portion of the value of the assessment by conducting superficial and hasty analysis of assessment data."[58]

According to the TRENDS Model of Needs Assessment, the analysis of needs assessment outcomes is a five part effort. It requires that the school system:

- aggregate the outcome by major sorting variables,
- identify major areas of need,
- assist the school in determining the underlying reasons for the developmental deficiencies,
- translate the school's test scores into normative measures in light of schools having similar student and environmental characteristics, and,

- summarize the results for priority setting purposes.

The analysis of the results of the assessment should lead the school system to:[59]

- an identification of the major gaps between desired level of performance and actual performance; however, it is just as important to maintain track of the absence of gaps for this is one effective means for identifying successful programs and methodologies which may be adopted to meet existing student deficiencies.

- an understanding of the underlying problems and causes why a child is not developing, rather than a mere listing of the symptons (e.g., rate of absenteeism may be a sympton of physical illness, mental anxieties or student boredom with program content).

- a valuation of the major child development steps that should be corrected, including perceptions as to the relative importance of correcting the deficiency as stated by parents, students, employees and teachers.

- a determination of the likelihood of success in correcting a deficiency under reasonable assumptions as to current program development, availability of resources, and time or personnel demands.

Use of Test Results in the Accountability Process

The matter of accountability has lately been considered a central part of assessment. The question of concern in this issue is on what these criteria shall be and who shall develop the criteria measuring results of local school system efforts. Nationally normed objective tests for measuring certain nationally determined criteria can and have been developed.

However, the problem which follows the development of such tests is their use by a multitude of local groups for a multitude of purposes, some valid and some highly invalid. Some school districts use the results of tests to dominate their whole school program, overlooking the fact that tests "can sample only a small portion of the content in a given subject area,"[60] and forgetting that there are many abilities and divergent processes which cannot be measured by tests. Nonetheless, districts that are aware that test scores have definite limitations for use in a school program are not apt to allow test content to dominate their whole district program.

The implication is that "if assessment is to work on a wide scale, then it must be preceded and accompanied by an intensive campaign to educate potential users on the meaning of the tests and their results."[61] Such a campaign would necessarily include teachers, administrators, school boards, legislators, and parents. To assist these groups in gaining a clearer understanding of meaningful, creative use of test results, educational labs, colleges and universities, and public school personnel, with extensive backgrounds in testing, measurement, and evaluation, should be employed.

Use of Test Results in Program Planning

To conduct the analysis, the school system is wise "to summarize and analyze the results of the assessment in several ways, in response to the planning, decisionmaking, and curriculum development needs of the school."[62] For example, the causes for a reading deficiency might be studied and possibly even categorized (e.g., visual, nutritional, social behavioral causes).

The weakness in many needs assessment systems lies in the inefficient use of data for program planning and development purposes. Effective analysis of results is intended to accomplish stronger planning and development.

Identifying Discrepancies

The next stop is to determine which objectives are being met and which ones are not being met. This step is accomplished by determining the extent of the discrepancy between the desired and the actual student performance in those objectives given the highest priority ratings. This step requires collecting information about present student performance on each important educational objective and comparing the results with a desired standard of performance. "Those objectives which are not being met according to the specified proficiency levels create, according to definition, the needs of an educational program. In other words, what is actually occurring is below what is expected."[63]

Variables in Determining Discrepancies

Discrepancies are often sought within three different variables: population characteristics, program characteristics and student characteristics.

1. Population Characteristics

   "An educational institution is established and maintained to provide educational experiences for a defined population. . .educational experiences offered to one population of children might be different from those offered to another population of children."[64] For example, educational experiences offered to a population of mentally retarded children are necessarily different from those offered to a population of emotionally disturbed children.

   The discrepancy which is sought pertaining to this variable is that difference between the number of persons in a population requiring a particular set of educational experiences and those currently receiving such experiences. "Are all of the children receiving educational experiences. . .are special children (gifted, mentally retarded, visually handicapped, etc.) receiving special experiences?"[65] "The discrepancy between this desired state of affairs and the actual number being served by the educational system is a primary discrepancy."[66]

2. Program characteristics

In this category, actual characteristics of a given program are compared with the desired state of affairs specified by expert judgment from consultants in their particular program area. Discrepancies are identified between the two.

"Items that might be viewed for discrepancies in this category vary greatly. Such things as facilities, materials, teacher qualifications, instructional hours, teaching techniques, curriculum organization, administrative practices, and many others would be assessed at this level."[67]

3. Student characteristics

"The 'actual state of affairs' is obtained through a direct measurement of student variables. . .the discrepancy is obtained through the comparison of measured student characteristics with established criteria."[68]

It is possible, and often necessary, to identify discrepancies in all of the three categories above. For example, it may be found that "a given educational experience is not reaching all of the students for which it was designed (population discrepancy), that it does not conform with what is considered the best instructional practice (program discrepancy), and that students are not exhibiting the desired behavioral changes (student discrepancy)."[69] Often, criteria for a program must be changed in order to effect change in student characteristics.

Establishing Priorities for Discrepancies

A standard often should not be established until a method for assessing student performance on a particular objective has been determined. For example, the standard might involve twenty-four out of fifty position responses to a questionnaire, or it might involve raising a median score to the 60th percentile on a nationally normed test.

Steps in Identifying Discrepancies[70]

- Identify all available sources of information for each educational objective.
- Establish ranges of performance in order that sizes of discrepancies can be assigned.
- Evaluate each source of information according to its validity and reliability.
- Multiply the number assigned to the size of the discrepancy by the number assigned to the quality of the information source.
- Total the weighted discrepancy and obtain an average weighted discrepancy where required.

Translating The Data Into Action

Selecting Priority Goals and Objectives

After identifying discrepancies, the next major step is the translation of this data and analysis into priority goals and objectives for program planning. This task is accomplished by deciding which of the identified gaps in student performance should be corrected first. In addition, goals which have traditionally been given attention over the years should be re-examined to determine if their relative priority has changed as measured by parents, students, teachers, and the community. "Moreover new gaps and deficiencies may have arisen which now need special attention."[71] Finally, some goals which have been met for some time through special means may now be met at far less expensive, more normal, but equally successful means.

Selecting where program development and resource efforts should be concentrated requires the establishment of priorities, and their ranking for the goals and objectives of the school system. In carrying out this step, the Planning Task Force should draw on the prior goal setting and analysis of assessment results for each goal, noting especially:[72]

- the initial rating or importance of the goal.
- the size of the gap between actual and desired level of performance.
- the value in correcting all or a part of the discrepancy.
- the likelihood of success of a new program.
- the assessment of existing programs and resources.
- the ability to change existing programs and resources.

Analyzing Data for Program Planning

The final task is preparing the assessment data for use in program planning, monitoring and evaluation purposes. To accomplish this task, (1) translate the analysis and data into criteria and terms directly usable by the schools' curriculum and program developers and budget analysts, and (2) establish a data storage and retrieval capability.

If needs assessment is to result in implementing needed programs and services, broad priority goals must be translated into specific child-oriented behavioral objectives. For example, a broad goal, such as improving the reading ability of elementary school children, can be broken down to include:[73]

1. the specific behavioral objective to be addressed (e.g., communication skills/reading mechanics/silent reading efficiency).

2. the target group addressed (e.g., sixth graders at Madison School).

3. the desired level of performance (e.g., sixth-grade level).

4. the measurement device.

5. the time dimension in which to achieve the desired performance level.

6. the objectives closely related to the primary objective.

Footnotes

[1]Lewis A. Bonney, "Accountability at the Local Level" and "Changes in Organizational Climate Associated with Development and Importance of an EMS." San Bernardino City Unified School District.

[2]*Ibid.*, p. 4.

[3]*Ibid.*, p. 3.

[4]*Ibid.*, p. 2, 3, 4.

[5]*Ibid.*, p. 5.

[6]*Ibid.*, p. 5

[7]*Ibid.*, p. 5.

[8]*Ibid.*, p. 6.

[9]*Ibid.*, p. 7.

[10]The entire section on the Dalla, Texas needs assessment model is a direct excerpt from "Needs Assessment in Education: A Planning Handbook for Districts," published by the New Jersey Department of Education in February, 1974. We acknowledge that this section of information was printed in the preceding publication.

[11]*The Static Model,* Needs Assessment Study, University of South Carolina, Columbia, South Carolina.

[12]William H. Schabacker, "Toward the Development of a Concept of Educational Assessment and the Role of the State Education Agency for Assessment," (Georgia State Department of Education), p. 2.

[13]Charles A. Woodbury et. al., "Virginia Needs Assessment Study: Research Strategies and Model for Assessment and Analysis," *Conceptual Model for Assessment: Analysis of Learner-Oriented Educational Needs of Virginia,* 1969–70, ED 075 082.

[14]"State Educational Assessment Programs, An Overview," TM Reports, No. 6, Educational Testing Service (December, 1971), p. 4, ED 056 102.

[15]*Ibid.*, p. 5.

[16]Vello A. Kuuskraa, "Needs Assessment," *Assessing the Educational and Developmental Needs of Disadvantaged Children* (January 7, 1971).

[17]*Ibid.*

[18]*Ibid.*

[19]*Ibid.*

[20]Ralph E. Walker, "Report of Educational Conference: Educational Priorities for the '70's" (Wichita, Kansas: Wichita Public Schools, January, 1973), p. 1.

[21]*Ibid.*, p. 2.

[22]*Ibid.*, p. 4.

[23]*Ibid.*, pp. 7 and 8.

[24]*Principals' Handbook* (Charleston, South Carolina: Charleston County School District, 1972–73), p. G–2.

[25]*Ibid.*, p. G–2.

[26]*Ibid.*

[27]*Ibid.*

[28]*Ibid.*, p. H–1.

[29]*Ibid.*

[30]*Ibid.*, p. H–6.

[31]Vello A. Kuuskraa, "Needs Assessment."

[32]*Ibid.*

[33]*Ibid.*

[34]*Ibid.*

[35]*Ibid.*

[36]"Systematic Approach to Needs Assessment," National Academy for School Executives, American Association of School Administrators.

[37]*Ibid.*, p. 19.

[38]*Ibid.*, p. 23.

[39]Vello A. Kuuskraa, "Needs Assessment."

[40]*Ibid.*

[41]*Principals' Handbook.*

[42]*Ibid.*, p. I–2.

[43]Vello A. Kuuskraa, "Needs Assessment."

[44]*Principals' Handbook*, p. I–4.

[45]*Ibid.*, p. I–4.

[46]*Ibid.*, p. I–4.

[47]*Ibid.*, p. I–5.

[48]*Ibid.*, p. I–5.

[49]*Ibid.*, p. I–5.

[50]*Ibid.*, p. I–5.

[51]Vello A. Kuuskraa, "Needs Assessment."

[52]*Principals' Handbook.*

[53]*Ibid.*

[54]Stephen P. Klein, "Ongoing Evaluation of Educational Programs" (September, 1972), p. 4.

[55]*Ibid.*, p. 4.

[56]*Principals' Handbook,* Needs Assessment Workshop (August 8–9, 1973).

[57]Vello A. Kuuskraa, "Needs Assessment."

[58]*Ibid.*

[59]*Ibid.*

[60]Wayne P. Moellenberg, "National Assessment: Are We Ready?" *The Clearinghouse,* vol. 43, no. 8 (April, 1969), p. 453.

[61]*Ibid.,* p. 453.

[62]Vello A. Kuuskraa, "Needs Assessment."

[63]"Systematic Approach to Needs Assessment." National Academy for School Executives, American Association of School Administrators.

[64]*The Static Model,* Needs Assessment Study, University of South Carolina, Columbia, South Carolina.

[65]*Ibid.*

[66]*Ibid.*

[67]*Ibid.*

[68]*Ibid.*

[69]*Ibid.*

[70]*Principals' Handbook.*

[71]Vello A. Kuuskraa, "Needs Assessment."

[72]*Ibid.*

[73]*Ibid.*

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